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## 567—52.4(455B) Conditions on withdrawals from groundwater sources.

**52.4(1)** Withdrawals from unconfined aquifers adjacent to streams draining less than 50 square miles. Withdrawals of water from unconfined aquifers adjacent to streams draining less than 50 square miles shall be subject to the following conditions:

- a. Two hundred gallon per minute (200 gpm) restriction. New withdrawals for a consumptive use at any location within ¼ mile (1320 feet) of a stream shall not be in excess of 200 gallons per minute (200 gpm), except when the applicant can conclusively demonstrate by conducting appropriate tests that withdrawals in excess of 200 gallons per minute (200 gpm) will not reduce the flow of the stream. However, the department may authorize withdrawals in excess of 200 gallons per minute (200 gpm) for storage purposes during high stream flows.
- b. Protected flow restriction. Except as provided in 52.4(1)"c" and 52.4(1)"e," withdrawals for consumptive uses, with the exception of community public water supplies, at any point within 1/8 mile (660 feet) of a stream shall be considered withdrawals from the stream and shall cease when the stream is below the protected flow designated in rule 52.8(455B), unless the applicant or permittee can conclusively demonstrate by conducting appropriate tests that the withdrawal will not reduce the flow of the stream.
- c. Border stream-interior stream confluence restriction. Withdrawals for consumptive uses, with the exception of community public water supplies, from the alluvial aquifers below the floodplains of streams bordering the state at any point within 1/8 mile (660 feet) of any interior stream shall cease when the flow of such interior stream is at or below the seven-day, one-in-ten year (7Q10) low flow, except as provided in 52.4(1) "d."
- d. Other conditions. Notwithstanding 52.4(1) "a" to 52.4(1) "c," other conditions may be imposed that are necessary to ensure adequate protection of water supplies for ordinary household, livestock, and domestic uses, for fish and wildlife, for recreational use, for the preservation and enhancement of aesthetic values, and for other uses of a public nature.
- e. Replacement water exemption. Paragraphs 52.4(1) "a" to 52.4(1) "c" shall not apply to withdrawals for consumptive uses from an unconfined aquifer if the permittee discharges replacement water into such stream or tributary thereto at rates sufficient to offset the consumptive withdrawals and the department approves the method and location of discharge.
  - f. Exemption until July 1, 1991, for certain users. Rescinded IAB 6/7/06, effective 7/12/06.
- **52.4(2)** Withdrawals from unconfined aquifers adjacent to streams draining 50 or more square miles. Withdrawals of water from unconfined aquifers adjacent to streams draining 50 or more square miles shall be subject to the following conditions:
- a. Protected flow restriction. Withdrawals for consumptive uses, with the exception of community public water supplies, at any point within 1/8 mile (660 feet) of a stream shall be considered withdrawals from the stream and shall cease when the stream is below the protected flow designated in rule 52.8(455B), except as provided in 52.4(2) "c" to 52.4(2) "f"."
- b. Seven-day, one-in-ten-year low flow restriction. Withdrawals for consumptive uses, with the exception of community public water supplies, at any point located between 1/8 mile (660 feet) and ½ mile (1320 feet) of a stream, other than a stream bordering the state, shall cease when the stream flow is at or below the seven-day, one-in-ten-year low flow (7Q10), except as provided in 52.4(2) "c" to 52.4(2) "f."
- c. Border stream-interior stream confluence restriction. Withdrawals for consumptive uses, with the exception of community public water supplies, from the alluvial aquifers below the floodplains of streams bordering the state at any point within 1/8 mile (660 feet) of any interior stream shall cease when the flow of such interior stream is at or below the seven-day, one-in-ten-year (7Q10) low flow, except as provided in 52.4(2)"d."
- d. Other conditions. Notwithstanding 52.4(2) "a" to 52.4(2) "c," other conditions may be imposed if they are necessary to ensure adequate protection of water supplies for ordinary household, livestock, and domestic uses, for fish and wildlife, for recreational use, for the preservation and the enhancement of aesthetic values, and for other uses of a public nature.

- e. Replacement water exemption. Paragraphs 52.4(2) "a" to 52.4(2) "c" shall not apply to withdrawals for consumptive uses from an unconfined aquifer, if the permittee discharges replacement water into such stream or tributary thereto at rates sufficient to offset the consumptive withdrawals and the department approves the method and location of discharge.
- f. Exemptions from low flow restrictions. The restrictions of 52.4(2) "a" to 52.4(2) "d" may be waived if the applicant or permittee can conclusively demonstrate by conducting tests to demonstrate that the withdrawal will not reduce the flow of the adjacent stream. The plan for testing must be approved by the department prior to the applicant's or permittee's conducting the tests.
  - g. Exemption until July 1, 1991, for certain users. Rescinded IAB 6/7/06, effective 7/12/06.
- **52.4(3)** Withdrawals from the Cambrian Jordan Sandstone Aquifer. Withdrawals of water from the Cambrian Jordan Sandstone Aquifer including the Prairie Du Chien formation and the St. Lawrence formation shall be subject to the following conditions:
- a. Two hundred gallon per minute (200 gpm) restriction on irrigation use and recreational and aesthetic use. New withdrawals of water for irrigation and recreational and aesthetic uses shall not be in excess of 200 gallons per minute (200 gpm). Existing permits for irrigation and recreational and aesthetic uses that authorize withdrawal rates in excess of 200 gallons per minute (200 gpm) may be modified by the department if, according to the department, any well in the vicinty experiences loss of water due to drawdown effects or the piezometric level is reduced significantly.
- b. Two thousand gallon per minute (2000 gpm) restriction on industrial use and power generation use. New withdrawals of water for industrial and power generation uses at one plant location shall not exceed 2,000 gallons per minute (2000 gpm).
- c. Two hundred (200) foot limit on the decline of groundwater piezometric levels. The maximum collective long-term decline in groundwater piezometric levels in the Cambrian Jordan Sandstone Aquifer in any high use area will not be permitted to exceed 200 feet from the 1977 baseline as determined from available records of the department's Iowa geological survey (IGS).
- *d. Variances.* Variances from the restrictions imposed by these rules will be considered by the department through the procedures in 561—Chapter 10.
- **52.4(4)** Withdrawals from the Dakota Sandstone formation of the Cretaceous system. The department may issue permits authorizing withdrawals of water from the Dakota Sandstone formation of the Cretaceous system for all beneficial uses under the following conditions:
- a. Inventory of nearby wells by applicant. An applicant who requests authorization for withdrawals of water at a maximum rate in excess of 200 gallons per minute shall conduct and submit an inventory of nearby wells as described in 567—paragraph 50.6(1)"b."
- b. Observation wells. In addition to the requirement of 52.6(3) for construction of an access port to allow measurement of water levels in each production well, an applicant or permittee may also be required to construct, maintain, and monitor observation wells as a condition of obtaining or keeping a water permit if the department, after consultation with the department's IGS, finds observation wells necessary to monitor the effects of the proposed or authorized withdrawals of water. Observation wells must be properly constructed and responsive to water level fluctuations in the aquifer. Plans for and monitoring of the observation wells must be approved by the department.
- c. Prohibition of excessive water level declines. If the department, after consultation with the department's IGS, determines that withdrawals of water from the Dakota Sandstone formation of the Cretaceous system within a designated geographical area are causing water level declines which constitute a significant threat to the public interest in the availability of water for sustained beneficial use of the aquifer, renewals of permits shall be denied, and permits shall be modified or canceled in accordance with procedures in Iowa Code section 455B.271, as necessary to protect the aquifer for sustained use.
- d. Priorities in renewal, modification and cancellation of permits. If permit renewals must be denied or if permits must be modified or canceled to prevent or abate water level declines which constitute a significant threat to the public interest in the availability of water for sustained beneficial use of the

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aquifer, withdrawals of water for community public water supplies shall have priority over withdrawals of water for other regulated uses. The priority list for water use can be found in 52.10(3).

This rule is intended to implement Iowa Code sections 455B.261, 455B.264, 455B.266, 455B.271 and 455B.272.